CLAIMS

What I claim as my invention is:

1. A method for non-invasive excitation of specific area neurons using electromagnetic brain animation (EBA) for the purpose of enhancing cognitive function within specific early habilitating populations.

(a) Selecting a target group from infant, early childhood, and/or adolescent chronology for enhancement, habilitation, rehabilitation, and/or redirection of abnormal brain function within specific brain regions that are known to impact/result in precise emotional and/or mental difficulties.

(b) Due to optimum plasticity of brain structure being highest at this strata of human development, there is unprecedented allowance for successful intervention relating to the influence of neuron activity utilizing electromagnetic brain animation.

(c) In direct and specific correlation with target population, optimum stage/phase presents two more significant epochs; critical periods and sensitive periods for which understanding is crucial to understanding environmental needs of early life brain in direct correlation with EBA.

2. A method and construction formulation is set forth whereas a "CAP"/ hat device and/or structure is the dominant physicality of the instrumentation.

(a) This "Cap" is 'utilized for complete inclusion of all conduction/coil points - 100+ - located within (inside), situated evenly through scope of "hat"- front to brows - back to nape of neck - sides to top of ears, to hover over and around head of patient.

(b). All coils will be elevated approximately one half to three quarters inch from cranium, held aloft and fixed by thin prong-like padded sturdy flexible elongations.

(c) Prong-like, padded, sturdy, flexible elongations are universally adjustable allowing for variations in distance from the skull during treatment resulting in ability to "fine tune"

coil transmission focus into specified brain area thus alleviating electromagnetic adverse effects correlated with closeness to skull.

3. A method for stimulating multiple specific areas of the brain by individual separate induction and/or multi-formulated mass infiltration with coil target initiation points from one to one hundred (1 to 100+).

4. A method of "impact integration" of "animation" pertaining to permeation of brain organ locale via "composite amalgamation" (multiple coil inductions/numerous locales/frequent variations/varied distance/rotating transmissions/multiple combined correlations thereof) excitation impetus toward assisting influence of target rather than singular more sharply rigorous induction toward forceful manipulation and/or stimulation of same region.

5. A method of coils varying in shapes from "double eight" to "quadruple eight" to "dumbbell" to "triple circle bar" to "double squared triangle" as well as numerous other uncharacteristic forms and/or contours in architectural correlation with the fact that "shape of field is largely determined by shape of coil.

6. A method where current amplitude in the coils are controlled individually, as all other controls are inclusive thereof..

(a) Making it possible to be able to move location of coil emission induction via manual modulation control box without moving the coils themselves.

(b) Making possible the emission locations of electromagnetic fields to transmit from different positions at the same time.

(c) Making possible initiating of emissions from different positions at deferent amplitudes and/or formulations.

7. A method of targeting specific coil transmissions into specific locations on the basis of MRI images, computer tomography (CT), and/or multiple other complementary instrumentation via manual electronic switching control situated in panel or box form within treatment area..

8. A method is set forth whereas "EBA mapping" is performed by changing coil/power/conductor position above and over the head while observing effects via a separate control panel where all induction capsules within "Cap" are directly connected to individual control modules.

9. A method is set forth where "Double EBA"-as in animation refers to 2 contact/coil/conductor points applied to different cerebral loci with timing and intensity adjusted separately.

10. A method of quadruple EBA" refers to 4 animation contact points with two or four different cerebral loci and timing and intensity adjusted in quadrangle form or dual or individual as single.

11. A method set forth where multi-channel - EBA" as in up to10 to 20 to 100 plus separate coils/conductors applications elevated over scalp/head with animation working independently from each point or any configuration of the multiplicity of points working in unison or gradient separations thereof.

12. A method set forth where "urEBA" refers to ultra rapid electromagnetic brain animation of above 50 Hz, "high frequency EBA" as in replication pulse rates above 1 Hz, "low frequency EBA" as in replication rates below 1 Hz, and EBA/US is indicative of secondary usage of ultrasound..

13. A method of EBA formulation resulting in coil positioning/motor-evoked response, reaction from animation and/or post indications derived by calculating variation with geometrical coordination to necessary locale, directed from secondary control box can be

noted box screen with additional compliment from one or more numerous instrumentations, i.e., MRIs, PETs, EEGs, MEGs, and/or NIRSs.

14. A method whereas using EBA, the variation in head size related to any and all brain regions has no effect on clinical efficacy at all due to stability of "CAP" instrumentation template.

15. A method set forth whereas EBA non-invasive impacting of the brain relate in heretofore unheard of positive coordination with "target population".

16. A method for stimulating a specific area of a brain using an induction device (1), comprising the following steps: a) recording the spatial structure of the head, in particular the brain; b) generating a live (present time) model of the brain and specific regions via schematic screen.

17. A method of evaluating the subject's brain for enhancement of brain and/or region function after subjecting the subject to the magnetic field.

18. A method wherein the magnetic field is a gradient magnetic field that is substantially uniform over at least a region of the brain and potentially as much as 60-70 percent of the brain due to dominant instrumentation structure "CAP".

19. A method wherein the region can be any area/section considered relevant to potential electromagnetic brain animation enhancement of mental difficulties within infant, early childhood, or adolescent development.

20. A method wherein a generating a time-varying magnetic field using a sequence of pulses, wherein the duration of each pulse in the sequence is less than about 10 milliseconds and wherein the pulses in the sequence alternate in polarity; and (c) subjecting the subject's head to the time-varying magnetic field.

21. A method as set forth wherein a coil in the form of a double-eight is used as the induction device.

22. The method as set forth wherein the areas of the brain are animated by electrical magnetic impulses in the induction device.

23. A method wherein the pulse sequences consists of a series of waves and is greater than1000 amps in electrical current and less than10000 amps, the pulse sequence is in the range of 5-50 seconds in duration, each wave is less than 1 millisecond in duration - down to 1 tenth of 1 mmillisecond, and the magnetic field produced thereby is at least 1 Tesla and possibly up to 3 Tesla.

24. A method wherein the magnetic induction coil(s) may be a superconductive coil cooled below its critical temperature and/or the "adaptation" modulation may allow extra low Hz and power to emanate from 9V battery.

25. A method wherein the pulse sequence (train) is in the range of 5-50 seconds in duration and is at a frequency that can be in a range of from 10 - 100 Hz and wherein this can be achieved in replications of 10 to 20 if/when needed.

26. A method wherein the pulses have a pulse duration in the range of 50 to 400 microseconds, whether constant or varying systematically or haphazardly within said range. This method can replicate in variables of 10.

27. An electromagnetic animation generator comprising multiple magnetic cores being approximately hemispherical as in standard orientation, but also non-hemispherical in contour categories wherein utilitarian emissions need to be manifested so that electromagnetic fields differentiating in shape and/or form may be more successful and said magnetic cores comprising magnetic material having a magnetic saturation of at least 0.5 Tesla and up to 5 Tesla, and having windings of wire around at least a portion of said magnetic cores, count being up to 100 plus, size being as small as one quarter to one half

inch diameter or can be integrated/installed to encompass as much as one quarter to one half of the "Thinking Cap".

28. A method for magnetically animating the brain of the patient transcranially using an electromagnetic animation generator having one or multiple hemispherical and/or non-hemispherical magnetic cores.

29. A method for treatment of depression, attention deficit, anxiety, obsessive compulsive disorder, dysthymia, memory loss, learning disorder and other possible emotional and/or cognitive instabilities with specific and primary target client/patient population of infant, early childhood, and adolescent age groups.

(a) Additional, directing a subject to perform a predetermined task; and, magnetically animating the brain of said subject transcranially during performance of said predetermined task using an electromagnetic brain animator having one or more magnetic animators and magnetic cores.

(b) And, additional giving multiple pre and post psychological tests - T-Batteries - relating to mental area attempting to enhance or cause to acquiesce - sociologicals/behaviorals/memory.

30. A method of treatment set forth whereas a modality shifter adaptation from high level power source (10,000V outlet) to an extra low level power source (9V to 12V mobile battery) can be/is applicable due to an (Adaptor Modality Shifter) mechanism; a heretofore unavailable variation range in all inclusive emission/conduction areas for non-invasive brain integration.

31. A method for enhancing brain function whereas using electromagnetic brain animation, due to the "Cap" structure and formulation of all coil/conduction instrumentation residing within, variation in client head size related to treatment

animation of any and all regions has no effect on clinical efficacy due to stability of instrument not found in any other "field" mechanism.

32. A method for enhancing brain function of specific early development, optimum plasticity populations using electromagnetic brain animation in conjunction with a secondary complementary procedure of sonography and/or ultrasound primarily as an initiative neuron excitation prerogative.

(a.) To allow optimum neuron sensitivity strata acclamation for higher potential of greater success via follow-up with exclusive EBA.

(b) To allow optimum focus of loci utilizing sonographic high frequency induction's greater specification control toward preparation of pre-excited neuron region to be more narrowly charted and readily designated for follow-up animation.

(c) To allow via an "Adaptor Modality Shifter" (a conductive switch) the potential to utilize either EBA exclusively, or EBA with ultrasound (EBA/US), or ultrasound exclusively.

ABSTRACT OF THE DISCLOSURE

This invention pertains to apparatus instrumentation methodology formulated to perform **electromagnetic brain animation (EBA)** for the purpose of partial and/or complete alleviation of specific mental impairments relating categorically to infant, early childhood, and adolescent target populations. **EBA** expressly refers to an innovative system and mechanized manner for determining and redirecting particular areas of the brain found to suffer from endemic and/or environmental injury. "Electromagnetic brain animation" is an innovative and enhanced initiative for positive influence on brain region neuron activity with the impetus to habilitate, rehabilitate and/or redirect dysfunctional neuron and/or cellular structure in direct correlation with greater pliability of evolving nervous systems as well as superior biological plasticity due to specified group cluster.